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The Role of Immigration in the Health of Lesbian, Gay, Bisexual, and Transgender Older Adults in the United States

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Abstract

Lesbian, gay, bisexual, and transgender (LGBT) aging research is growing around the globe. Yet, few studies have examined the interconnectedness of different populations and cultures. This study examines whether LGBT foreign-born older adults experience greater health disparities than their U.S.-born counterparts. We conducted a cross-sectional analysis of the National Health, Aging, and Sexuality/Gender Study: Aging with Pride from 2014, which assessed measures of health and well-being among LGBT adults aged 50 years and older (n=2,441). We compared sociodemographic characteristics, health-care access, health behaviors, and health outcomes between foreign-born and U.S.-born participants. Foreign-born LGBT older adults reported greater socioeconomic disadvantage and higher levels of experiencing barriers to health-care access than U.S.-born LGBT older adults. Groups did not significantly differ in health behaviors and health outcomes when controlling for sociodemographic factors. Greater understanding of the mechanisms that shape the relationship between migration and health among the LGBT population is warranted.

Keywords

LGBT; immigration; health; aging; sexuality

Lesbian, gay, bisexual, and transgender (LGBT) older adults in the United States are fast-growing, health disparate populations, whose estimated size currently reaches nearly 3 million (Fredriksen-Goldsen & Kim, 2017). According to a population-based study, LGBT older adults are at elevated risk for poor physical and mental health outcomes including chronic conditions, disability, poor general health, and mental distress when compared with their heterosexual counterparts (Fredriksen-Goldsen, Kim, Shiu, & Bryan, 2017). Furthermore, growing evidence highlights the necessity of examining subgroup differences in health disparities among racially and ethnically diverse LGBT older adults and addressing unique needs of individuals whose sexual and gender identities intersect with other social positions (Kim, Jen, & Fredriksen-Goldsen, 2017). In this study, we examine health disparities among foreign-born LGBT older adults in the United States, one of the most

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understudied and underserved populations, possibly due to multiple marginalized social positions.

Globally, the United States is the most popular destination for migrants with approximately 1 million immigrants arriving each year (United Nations, 2017). Nearly 50 million immigrants, or foreign-born individuals, reside in the United States and account for approximately 15% of the total population (United Nations, 2017). Currently, immigrants have a median age of 43 years compared with 35 years among the U.S.-born population (Camarota & Zeigler, 2016). As immigrants typically migrate at younger ages in pursuit of work, these data highlight the aging of the immigrant population and their increasing lengths of time in the United States (Population Reference Bureau, 2013). Nearly one million estimated adult immigrants identify as LGBT in the United States (Brown, 2017); and nearly one fifth of them are aged 55 years and older (Gates, 2013). This estimate has increased over the years as migration has become a feasible strategy for LGBT individuals to escape restrictive or retributive contexts and relocate to ones that are more tolerant (Bhugra, 2004).

While the large number of immigrants in the United States illustrates a welcoming and desirable country to live in, the politics and attitudes surrounding immigration continue to be a source of contention. While general views of immigration into the United States have tended to be favorable toward educated and high-skilled people, they have been more discouraging toward undocumented or less-skilled groups (Connor & Ruiz, 2019). In addition, the United States prohibited entry of LGBT migrants until the ban was lifted in 1990 (Howe, 2007). Renewed attention to U.S. immigration programs in recent years has fostered an exclusionary environment for specific immigrant groups (Hatzenbuehler et al., 2017). Such exclusionary policies and rhetoric that limit opportunities for immigrants based on marginalized social or demographic characteristics can generate stigma and discrimination (Hatzenbuehler et al., 2017). Hence, older adult LGBT immigrants may confront a unique U.S. context that requires prudence and consideration of their complex identities and life circumstances.

As immigrants represent an increasing share of the nation’s older adult population, their health and well-being have important public health implications; yet, further research is needed to better understand the aging and health of immigrants. While immigrants tend to have better health than native born individuals when arriving to the United States, a phenomenon commonly referred to as the immigrant health advantage (Hamilton, 2015), the health advantage tends to deteriorate with time (Antecol & Bedard, 2006). Hence, immigrants with longer residence in the United States are at increased risk for poor health and chronic disease development (Antecol & Bedard, 2006). Several migration-related processes and mechanisms such as acculturation, stress from adapting to new environments, and socioeconomic disadvantage have been suggested as explanations for this health decline over time (Lee, O’Neill, Ihara, & Chae, 2013). Moreover, barriers to health-care access and sociopolitical challenges associated with immigration status may exacerbate health disparities among the immigrant population. Older adult immigrants have complex health needs that are associated not only with the aging process but also with social, political, economic, and cultural factors that can shape health-care access, health-related behaviors, and outcomes (Wakabayashi, 2010). Moreover, immigrant status and migration-related

processes are influential social determinants of health that can evolve with age (Castañeda et al., 2015).

Despite older adult immigrants' increased risk for poor health (Cunningham, Ruben, & Narayan, 2008), research on immigrant health has tended to focus on the general adult population, providing limited evidence for extrapolating findings to older immigrants (Gubernskaya, Bean, & Van Hook, 2013). For example, several studies have documented longer life expectancy and lower mortality risks among immigrants than among the U.S.-born (Singh, Siahpush, Liu, & Allender, 2018). However, when subgroup differences and sociodemographic factors, including age, are considered, study results have been mixed (Cunningham et al., 2008). These data emphasize the importance of examining the intersections of identity and experience when seeking to understand immigrant health. Older adult immigrants comprise a diverse population who arrived in the United States at various points in their life from a range of different countries. Hence, the identification of specific social determinants that shape the health of older immigrants is necessary to facilitate development of targeted health interventions.

The phenomenon of "sexual migration" refers to international migration that is motivated, at least in part, by one's sexuality (Carrillo, 2004). Sexual migration may offer opportunities for LGBT individuals to distance oneself from discriminatory experiences or seek greater sexual equality. While many LGBT immigrants in the United States may have fled oppressive situations in their countries of origin, they may continue to face social and political exclusion. Experiences of victimization and discrimination are common among the LGBT population, and improving the health and safety of LGBT individuals has become a national health objective (Fredriksen-Goldsen & Kim, 2017). Research suggests that LGBT immigrants may encounter "double disadvantage" from experiencing several forms of oppression related to being both cultural and sexual minorities (Sokan & Davis, 2016). Notably, navigation of the U.S. context may vary by factors that shape the immediate contexts in which immigrant LGBT older adults live, such as antidiscrimination policies. Experiences may also depend on policies or cultural contexts of immigrants' countries of origin, which can offer important comparative perspectives for understanding environments in the United States.

While older adult immigrants and older adult LGBT individuals experience significant health disparities, there is limited research that examine the health and well-being of foreign-born older adults who are LGBT. While immigration status is an important social position that can differentiate LGBT health (Fredriksen-Goldsen et al., 2014), no study to our knowledge has previously compared the health outcomes of foreign-born and U.S.-born LGBT older adults in the United States. A notable reason for this gap is the difficulty in obtaining samples from largely hidden and historically marginalized groups such as LGBT older adults and immigrants. LGBT older adults have a lower population proportion relative to other demographic groups and may not openly reveal their group identity due to social pressure or internalized fear of prejudice (Fredriksen-Goldsen & Kim, 2017). Similarly, those foreign-born in the United States may experience fear of legal confrontation, mobility, and language barriers that can make them hard-to-reach for research. Hence, few studies

have utilized population-based samples of LGBT older adults and even fewer have obtained sufficient immigrant subsamples.

Despite these challenges, efforts to better understand the health outcomes of immigrant groups are timely given continuing immigration and population aging that will shape our nation's and the world's health. Such research highlights important intersections of culture, sexuality, and gender, within a global context. By utilizing methods to recruit a sample that seeks to reflect the heterogeneity of the nation's LGBT older adult population, this study represents an important exploratory step toward filling the gap in public health and gerontology literature. Specifically, we examine differences between U.S.-born and foreign-born LGBT older adults in terms of sociodemographic characteristics, health access, health behaviors, and health outcomes.

Methods

We used data from the Aging with Pride: National Health, Aging, and Sexuality/Gender Study (NHAS), a national, longitudinal study of health, aging, and well-being of LGBT older adults (Fredriksen-Goldsen & Kim, 2017). For this study, we conducted a cross-sectional analysis of the 2014 wave survey data. Participants were aged 50 years and older, and self-identified as lesbian, gay, bisexual, or transgender, or reported engagement in a sexual or romantic relationship with a partner of the same sex or gender. The NHAS recruited participants using contact lists of agencies serving LGBT older adults across the United States and further adopting a social network clustering chain referral approach to reach subgroups including racial and ethnic minorities. Self-administered surveys, by mail or online according to the participant's preference, were completed by 2,450 participants. To assess differences between U.S.-born and foreign-born LGBT older adults, only participants reporting this status were included in analyses (n=2,441).

Measures

Sociodemographic characteristics.—We assessed participants' gender (woman, man, other), gender identity (transgender, cisgender), sexual orientation (lesbian/gay, bisexual, heterosexual, other), and race or ethnicity (Hispanic, non-Hispanic White, non-Hispanic Black, other). We determined whether participants' income was at or below 200% of the federal poverty line. Education was assessed by participants' highest level of education (high school, college, graduate or professional degree) completed. Immigrant status was assessed by participants' report of being born in the United States (U.S.-born or foreign-born).

Health-care access.—Structural level and individual level barriers to health-care access were assessed. Items for structural barriers included "There was no LGBT friendly healthcare in my area," "The care I needed was not available in my area," and "I didn't have transportation" to healthcare. Participants were also asked how often they felt that doctors or other health providers judged them unfairly or treated them with disrespect. Participants indicated how often they experienced these barriers in the past 12 months on a 4-point Likert scale (1=*never*, 4=*always*).

Individual-level barriers to health-care access included health literacy assessed with an eight-item scale (α=.89) including difficulties in accessing, understanding, evaluating, and applying information; interacting with health-care providers; being proactive in one's own care, finding support, and navigating the health-care system (Fredriksen-Goldsen & Kim, 2017) on a 4-point Likert scale (1=*very difficult*, 4=*very easy*). A summary score (averaged responses) of the eight items was computed. Additional individual-level barriers included the following items: "I needed medical care but did not get it because I couldn't afford it," "I put it off even though I was sick or needed advice about my health," and "There was a time I didn't trust or believe in doctors." Participants indicated frequency of experiencing the individual level barriers in the past 12 months on a 4-point Likert scale (1=*never*, 4=*always*).

Health behaviors.—The NHAS assessed selected health behaviors among participants via self-report (Fredriksen-Goldsen & Kim, 2017). Participants reported whether they visited a doctor for a routine checkup in the past 12 months. Participants also indicated how long it had been since they received a flu vaccination (within past year, 1–2 years, 2 or more years, and never). Responses were dichotomized into "within past year" and other. Engagement in physical activities was assessed by whether participants were engaged in moderate or vigorous activities (time in minutes for vigorous activities was weighted by multiplying by 2 for more than 150 minutes in total per week; Centers for Disease Control and Prevention [CDC], 2015). Those who indicated smoking every or some days and had smoked at least 100 cigarettes were coded as current smokers (Jamal et al., 2015). Participants indicated the maximum number of drinks consumed at any drinking occasion, with excessive drinking defined as four or more drinks (CDC, 2012). Finally, the NHAS measured malnutrition by frequency of experiencing insufficient food intake on a 5-point Likert scale (1=*never*, 5=*always*).

Health outcomes.—General health was assessed by self-report of a single overall health item (DeSalvo et al., 2009). Responses were dichotomized into poor (= 1; poor and fair) and good (= 0; good, very good, and excellent). Depressive symptomatology was measured by a 10-item Center for Epidemiologic Studies Depression Scale (α = .85; Lewinsohn, Seeley, Roberts, & Allen, 1997). The summed score ranged from 0 to 30. HIV/AIDS was measured by self-report of whether the participant had been diagnosed with HIV/AIDS. Cognitive impairment was measured by a six-item cognitive function subscale of the World Health Organization Disability Assessment Schedule II (α=.87; Üstuü, Kostanjsek, Chatterji, & Rehm, 2010). Summary scores ranged from 0 to 100 with higher scores indicating higher levels of cognitive impairment. Physical limitations were measured by a mean score of 8 items (α=.90) that assessed lower and upper extremity performance (0=*no difficulty*; 4=*extreme difficulty or cannot do*; National Center for Health Statistics, 2017). Disability was measured by the presence or absence of disability defined by limited activities or need for special equipment due to health problems (Fredriksen-Goldsen, Kim, & Barkan, 2012).

Statistical Analysis

Statistical analyses proceeded in two steps. First, we calculated prevalence estimates and their 95% confidence intervals (CIs) of sociodemographic characteristics among U.S.-born and foreign-born participants and compared estimates using χ^2 tests or t-tests. Then, we

compared distributions of health behaviors, health-care access indicators, and health outcomes by U.S.-born versus foreign-born status by computing their prevalence estimates and 95% CIs and conducting unadjusted and adjusted logistic and linear regressions, as appropriate. Adjusted models were controlled for sociodemographic variables (gender, age, sexual orientation, race/ethnicity, income, and education). Analyses were conducted using STATA/SE (version 14.2; Stata Corp, College Station, TX) with svy commands applying survey weights. Survey weights were computed to reduce selection bias from the nonprobability sample by applying a two-step postsurvey adjustment (Lee & Valliant, 2009) utilizing external probability sample data as benchmarks. See Fredriksen-Goldsen and Kim (2017) for detailed information regarding study methods.

Results

The analyzed sample included 2,267 U.S.-born and 174 foreign-born LGBT older adults aged 50 to 98 years. Table 1 presents estimates of sociodemographic characteristics by U.S. -and foreign-born status. More foreign-born participants reported having incomes at or below 200% federal poverty line (55.59%) relative to U.S.-born participants (34.86%). In addition, the racial/ethnic distribution of foreign-born participants differed from that of U.S.-born participants with 80.26% of U.S.-born participants identifying as Non-Hispanic White and more than half (53.76%) of foreign-born participants identifying as Hispanic. Groups also differed in educational attainment, as U.S.-born participants were more likely to report completing college or a graduate or professional degree than foreign-born participants. U.S.-born and foreign-born participants did not statistically significantly differ in age, gender, gender identity, or sexual orientation.

Health Indicators

Health-care access.—U.S.-born LGBT older adults significantly differed across certain structural-level and individual-level barriers to health-care access (Table 2). Among structural-level barriers in the adjusted model, foreign-born LGBT older adults reported higher mean frequencies of not having the care needed available in their area (*M*: 1.58 vs. 1.27; $p<.05$), not having transportation to care (*M*: 1.60 vs. 1.20; $p<.05$), and experiencing unfair treatment by physicians (*M*: 1.65 vs. 1.44; $p<.05$). Foreign-born LGBT older adults also reported higher mean frequencies of lack of access of LGBT friendly healthcare than U.S.-born LGBT older adults in the unadjusted model (*M*: 1.69 vs. 1.39; $p<.05$), but the difference was no longer statistically significant after adjusting for covariates.

Among individual-level barriers to health-care access, groups did not statistically differ in mean levels of health literacy or delaying visiting the doctor even though they were feeling sick. In the unadjusted model, immigrants reported higher mean frequencies of not being able to afford medical care than U.S.-born participants (*M*: 153 vs. 1.31; $p<.05$). When adjusting for covariates, this difference was approaching statistical significance ($p=.05$). In addition, foreign-born LGBT older adults reported higher mean frequencies than U.S.-born participants in experiencing lack of trust in doctors (*M*: 1.89 vs.1.47; $p<.01$).

Health behaviors.—Foreign-born and U.S.-born LGBT older adults did not statistically significantly differ in obtaining an annual health checkup or getting a flu shot in the past 12

months. In addition, there were no significant differences between participants in prevalence rates of current smoking, excessive drinking, and engagement in physical activities (Table 2). Foreign-born LGBT older adults reported higher mean levels of malnutrition relative to U.S.-born participants in the unadjusted model (*M*: 1.86 vs. 1.53; $p<.05$). The difference was no longer statistically significant after adjusting for covariates.

Health outcomes.—Prevalence rates of self-reported poor general health and having a disability and mean levels of physical limitations were not statistically significantly different between groups (Table 2). Mean levels of self-reported cognitive difficulties were significantly higher among foreign-born (*M*: 26.53) than U.S.-born participants (*M*: 17.83) prior to adjusting for covariates ($p<.01$; Table 2). Similarly, mean scores of depressive symptomatology were higher among foreign-born (*M*: 10.41) than U.S.-born participants (*M*: 8.07) in the unadjusted model ($p<.05$). The differences were no longer statistically significant after controlling for covariates. Finally, prevalence rates of HIV/AIDS were higher among foreign-born (34.63%) than U.S.-born participants (16.94%) in the unadjusted model ($p<.001$). After controlling for covariates, the difference was no longer statistically significant (Table 2).

Discussion

To explore the role of immigration in shaping LGBT health among older adults, we assessed differences in sociodemographic characteristics, health-care access, health behaviors, and health outcomes between U.S.-born and foreign-born LGBT older adults living in the United States.

Findings across major socioeconomic characteristics, specifically disadvantages in income and education among foreign-born LGBT older adults, paralleled differences between the country's overall U.S.-born and foreign-born populations (Dey & Lucas, 2006). While all participants currently resided in the United States, the conditions in which participants were born can play a critical role in their economic and educational opportunities (Castañeda et al., 2015). Hence, results underscore the contribution of nativity in understanding differences in socioeconomic opportunities among LGBT older adults in the United States. Foreign-born status is a particularly salient identity in the current sociopolitical climate as immigrant-related stigma has gained increasing prominence in the United States context (Morey, 2018). Further, contextual factors such as immigrants' social position have been shown to be significantly associated with health behaviors, health access, and health outcomes (Singh et al., 2018). As poverty and education are well-established social determinants of health (Dixon, 2000), foreign-born LGBT older adults may encounter greater challenges to good health than their U.S.-born counterparts.

It is worth noting, however, that socioeconomic characteristics only partially explain disparities in health-care access among foreign-born LGBT older adults; the disparities remained significant even after controlling for socioeconomic characteristics. Higher levels of not having needed care available in the area among foreign-born LGBT older adults may be attributable to several factors, including the unique health-care needs of the foreign-born population. Certain health conditions, for example, may be more prevalent in foreign-born

participants' countries of origin, resulting in inadequate resources designated to attend to those concerns in the United States (CDC, 2013). Foreign-born individuals may also desire culturally specific health services that are not formally offered or available in the United States (Leclere, Jensen, & Biddlecom, 1994). Specifically, the intersection with older age and LGBT identities may contribute to complex and culturally specific needs. These services may also be unavailable due to higher levels of poverty and financial constraints in foreign-born LGBT individuals' communities. While LGBT populations have tended to be concentrated in urban areas where LGBT resources are more readily available (Mayer et al., 2008), foreign-born LGBT older adults may be less likely to reside in such areas due to high living costs or the preference to live in their racial and ethnic communities (Jargowsky, 2009). Hence, findings suggest gaps in culturally appropriate and acceptable health-care services that address the needs of foreign-born LGBT older adults in the United States.

Further, foreign-born participants' reports of not having transportation to access healthcare may be, in part, due to lower levels of support networks among this population (Documet, Troyer, & Macia, 2019). As foreign-born individuals may experience disruptions in social support networks due to separation from family and friends from migration (Rhodes et al., 2015), they may lack resources that facilitate transportation. In addition, language barriers alongside older age may prevent foreign-born LGBT older adults from navigating transportation systems to access care (Flores, 2006).

Foreign-born participants also reported higher levels of feeling unfair treatment by physicians than U.S.-born LGBT older adults. This disparity may point to the "double disadvantage" effect of being both sexual minority and foreign-born. LGBT older adults, particularly those in need of mental health services, often report discrimination in healthcare (Shiu, Kim, & Fredriksen-Goldsen, 2017). Foreign-born individuals may face additional challenges in finding culturally responsive health providers. Further, discrimination and stress resulting from the increasingly anti-immigrant climate in the United States may exacerbate barriers to health-care access and contribute to greater feelings of unfair treatment from providers among LGBT foreign-born older adults (Morey, 2018).

Foreign-born LGBT older adults also reported higher levels of individual-level barriers to accessing healthcare, particularly lack of trust in physicians, than U.S.-born participants. Notably, these individual-level barriers intersect and interact with the aforementioned structural barriers. This lack of trust may be related to cumulative distrust about the health-care system due to challenges in accessing services that are responsive to the unique needs of foreign-born communities as well as LGBT aging. Hence, it is not surprising that foreign-born LGBT older adults reported greater levels of inability to afford medical care than their U.S.-born counterparts as accessing services in health-care contexts that are not tailored or appropriate for one's specific health and cultural needs can prove to be more costly and financially challenging (Chin, 2000). Taken together, the intersection of complex identities may require specific health-care needs which may, in turn, contribute to greater barriers to health-care services.

Despite the increased structural- and individual-level barriers to health-care access among foreign-born LGBT older adults than U.S.-born LGBT older adults, groups did not

statistically significantly differ in measured health behaviors after controlling for sociodemographic characteristics. While foreign-born participants reported higher levels of malnutrition than U.S.-born participants, the difference was no longer statistically significant in the adjusted model. Hence, greater malnutrition among foreign-born participants may be directly linked to the inability to buy or pay for food given their higher likelihood of being below the poverty line. Moreover, the lack of significant differences between groups in behaviors may highlight the importance of sociodemographic factors, such as lower income and education, in shaping these behaviors.

Another potential explanation for the lack of differences in health behaviors aligns with the deterioration of the immigrant health advantage as immigrants adapt to behaviors similar to their U.S.-born counterparts (Hamilton, 2015). While we did not account for length of time in the United States, the older age of the sample suggests foreign-born individuals had time to assimilate to the behaviors and norms of the U.S.-born group. This acculturation process may have resulted in similarities in physical activity and health-seeking behaviors (annual checkup and flu shot) as well as unhealthy behaviors (smoking and drinking) between foreign-born and U.S.-born LGBT older adults.

Foreign-born LGBT older adults reported higher levels of depressive symptomatology and cognitive difficulties than did U.S.-born LGBT older adults in the unadjusted models. This finding points to an important distinction between physical and mental or cognitive health—both of which may become increasingly vulnerable with age. Foreign-born LGBT older adults, however, may experience greater depressive symptoms and cognitive difficulties than U.S.-born LGBT older adults due to factors related to migration and socioeconomic disadvantage (Bhugra, 2004). Given that differences in depressive symptomatology and cognitive difficulties were no longer statistically significant after controlling for covariates, attention to the heightened socioeconomic disadvantage of foreign-born LGBT older adults is critical for addressing mental health disparities among this group.

With regard to the similarities in general and physical health (physical difficulties and disability) between groups, there are several potential explanations to understand this finding. The hardiness of those with multiple intersectional social positions may cultivate their resilience and strengthen their communities. LGBT older adult immigrants may represent a particularly resilient group that has developed strategies over time to address challenges that can compromise their health. For instance, despite elevated barriers to health access, LGBT older adult immigrants may access alternative resources that support their health and well-being. According to the salmon bias hypothesis (Turra & Elo, 2008), selective return of foreign-born LGBT older adults with poorer health may contribute to a population of healthier LGBT foreign-born older adults in the United States despite additional challenges to good health. Moreover, selective return to countries of origin may be attributable to the sociopolitical climate in the United States. LGBT foreign-born older adults who experience greater physical challenges may not only be vulnerable to poor health but may also experience greater exclusion, discrimination, and financial difficulties, increasing their likelihood to leave the United States. Hence, understanding the motives behind migration of LGBT foreign-born older adults may offer avenues for addressing health disparities.

Finally, the higher likelihood of having HIV/AIDS among foreign-born LGBT participants in the unadjusted model has important implications for HIV prevention efforts. HIV/AIDS is an important health concern that disproportionately affects the LGBT population in the United States and globally. While migration has been shown to increase HIV risk, sociodemographic characteristics may, in part, shape this relationship (Deane, Parkhurst, & Johnston, 2010). In fact, findings in the adjusted model suggest that disadvantages in income and education among foreign-born participants may account for the disparities. Results highlight the need to further examine the relationship between migration and sociodemographic factors to address HIV risk and enhance prevention efforts among this population.

The study has several limitations that should be considered. While data were part of a national longitudinal study of LGBT older adults, we conducted a cross-sectional analysis of the data. Longitudinal analyses may further elucidate how migration is related to changes over time in specific health behaviors and outcomes among LGBT adults. In addition, study findings may not generalize to the entire LGBT older adult population. We did not account for important aspects of migration and foreign-born status such as country of origin, length of time in the United States, reasons for migration, and documentation status. Documentation status is an important factor that can facilitate access to services, including welfare benefits (Gubernskaya et al. 2013). In addition, we did not account for participants' location of residence. States and local areas differ widely in their experiences and resources to adequately serve foreign-born populations. Variance in state policies and enforcement activities related to migration and topics related to foreign-born communities can shape individuals' behaviors and outcomes (Pereira et al., 2012). In addition, the study relied on self-administered survey data, which can be subject to bias. Further, we note that individuals of different gender identities and sexual orientations constitute a diverse and complex group. Future studies may consider the unique attributes of subgroups who identify as LGBT in relation to migration and health.

Future Research and Conclusion

Despite study limitations, this study addressed a gap in the global aging and public health literature by acknowledging the intersection of immigration, sexual and gender identity, and aging in the United States. Our study is among the first to compare health behaviors and outcomes between foreign-born and U.S.-born LGBT older adults. Study findings indicated that LGBT immigrant older adults experience socioeconomic disparities and greater barriers to health access than U.S.-born LGBT older adults. However, groups experienced similar health behaviors and outcomes. Important to note is that significant mean differences in health access tended to be of small magnitude; strategies to determine the clinical significance and meaningfulness of these differences may be useful for future studies.

The phenomenon of migration among LGBT older adults is multidimensional and involves complex and multilevel processes that shape not only the health and well-being of migrants but also communities in which they reside. Migration to the United States has shaped the nation's demographics and had social, economic, and political implications. When immigrants live or work in the United States, they can make positive social and economic

contributions to the country, regardless of gender, age, or sexual identity. Yet, the policing of gender, sexuality, and migration is increasingly prevalent and presents controversial political and social issues in the United States and global context (Westmarland, 2001).

Resultantly, individuals who deviate from traditional social identities may be at higher risk of experiencing victimization, discrimination, and marginalization. As the causes and consequences of migration are linked to sexuality and gender for this population, attention to LGBT older adults' intersectional identities is critical for identifying health prevention and promotion strategies that address their particular needs. Specifically, LGBT older adults' intersectional identities encompass age, race, class, sexuality, and gender. Research that acknowledges this complexity can further understanding about how these experiences differentially shape the health and mental health of LGBT older adults. These data may inform the development of interventions and formulation of policies that target and reduce barriers to health-care access, improving health outcomes among targeted LGBT groups.

Finally, the resilience and strengths of this population is worth noting and should be integrated in future studies. LGBT older adults demonstrate diverse strengths and assets that may develop from their unique experiences. Research that engages these strengths can support efforts to not only advance the health and well-being of LGBT older adults but also enhance recognition and acceptance of this population locally and internationally.

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Karen Fredriksen Goldsen, PhD, is a professor and Director of Healthy Generations at the University of Washington. Dr. Goldsen is a nationally and internationally recognized scholar addressing equity and the intersections of aging, health, and well-being in resilient, at-risk communities. She is Principal Investigator of Aging with Pride: *National Health, Aging, and Sexuality/Gender Study* (NIH/NIA, R01), the first national longitudinal study of LGBTQ midlife and older adult health assessing trajectories; Aging with Pride: IDEA *(Innovations in Dementia Empowerment and Action)* (NIH/NIA, R01) the first federally-funded study of cognitive impairment in LGBTQ communities; *Socially Isolated Older Adults Living with Dementia* (P30); *Sexual and Gender Minority Health Disparities*; and Investigator of *Rainbow Ageing: The 1st National Survey of the Health and Well-Being of LGBTI Older Australians*. Dr. Goldsen is the author of more than 100 publications, three books, and numerous invitational presentations including U.S. White House conferences and Congressional Briefings. Her research has been cited by the New York Times, U.S. News & World Report, NBC News, Washington Post, and more than 50 international news outlets.

References

Antecol H, & Bedard K (2006). Unhealthy assimilation: Why do immigrants converge to American health status levels? Demography, 43(2), 337–360. [PubMed: 16889132]

Bhugra D (2004). Migration and mental health. Acta Psychiatrica Scandinavica, 109(4),243–258. doi: 10.1046/j.0001-690X.2003.00246.x [PubMed: 15008797]

Brown A (2017). 5 key findings about LGBT Americans. Retrieved from Washington, DC: http://www.pewresearch.org/fact-tank/2017/06/13/5-key-findings-about-lgbt-americans/

Camarota S, & Zeigler K (2016). Immigrants in the United States: A profile of the foreign-born using 2014 and 2015 census bureau data. Retrieved from Washington, DC: https://cis.org/Report/Immigrants-United-States

Carrillo H (2004). Sexual migration, cross-cultural sexual encounters, and sexual health. Sexuality Research & Social Policy, 1(3), 58–70. doi:10.1525/srsp.2004.1.3.58

Castañeda H, Holmes SM, Madrigal DS, Young M-ED, Beyeler N, & Quesada J (2015). Immigration as a social determinant of health. Annual Review of Public Health, 36(1), 375–392. doi:10.1146/annurev-publhealth-032013-182419

Centers for Disease Control and Prevention. (2012). Vital signs: Binge drinking prevalence, frequency, and intensity among adults—United States, 2010. Morbidity and Mortality Weekly Report, 61(1), 14–19. doi:mm6101a4 [pii]. [PubMed: 22237031]

Centers for Disease Control and Prevention. (2013). Immigrant, refugee, and migrant health. Gateway to Health Communication & Social Marketing Practice. Retrieved from https://www.cdc.gov/healthcommunication/toolstemplates/entertainmented/tips/IRMHealth.html

Centers for Disease Control and Prevention. (2015). Physical activity: How much physical activity do older adults need? Retrieved from https://www.cdc.gov/physicalactivity/basics/older_adults/index.htm

Chin JL (2000). Culturally competent health care. Public Health Reports, 115(1), 25–33. [PubMed: 10968582]

Connor P, & Ruiz NG (2019). Majority of U.S. Public Supports High-Skilled Immigration. Pew Research Center Retrieved from Washington, DC: http://www.pewglobal.org/2019/0½2/majority-of-u-s-public-supports-high-skilled-immigration/

Cunningham SA, Ruben JD, & Narayan KMV (2008). Health of foreign-born people in the United States: A review. Health & Place, 14(4), 623–635. doi:10.1016/j.healthplace.2007.12.002 [PubMed: 18242116]

Deane KD, Parkhurst JO, & Johnston D (2010). Linking migration, mobility and HIV. Tropical Medicine & International Health, 15(12), 1458–1463. doi:10.1111/j.1365-3156.2010.02647.x [PubMed: 20958895]

DeSalvo KB, Jones TM, Peabody J, McDonald J, Fihn S, Fan V, … Muntner P (2009). Health care expenditure prediction with a single item, self-rated health measure. Medical Care, 47(4), 440–447. doi:10.1097/MLR.0b013e318190b716 [PubMed: 19238099]

Dey AN, & Lucas JW (2006). Physical and mental health characteristics of U.S.-and foreign-born adults: United States, 1998–2003. Advance Data, 369, 1–19.

Dixon J (2000). Social determinants of health. Health Promotion International, 15(1),87–89. doi: 10.1093/heapro/15.1.87

Documet PI, Troyer MM, & Macia L (2019). Social support, health, and health care access among Latino immigrant men in an emerging community. Health Education & Behavior, 46(1), 137–145. doi:10.1177/1090198118763870 [PubMed: 29519167]

Flores G (2006). Language barriers to health care in the United States. New England Journal of Medicine, 355(3), 229–231. doi:10.1056/NEJMp058316 [PubMed: 16855260]

Fredriksen-Goldsen KI, & Kim H-J (2017). The science of conducting research with LGBT older adults—An introduction to aging with pride: National health, aging, sexuality and gender study. The Gerontologist, 57(S1), S1–S14. doi:10.1093/geront/gnw212 [PubMed: 28087791]

Fredriksen-Goldsen KI, Kim H-J, & Barkan SE (2012). Disability among lesbian, gay, and bisexual adults: Disparities in prevalence and risk. American Journal of Public Health, 102(1), e16–e21. doi:10.2105/AJPH.2011.300379 [PubMed: 22095356]

Fredriksen-Goldsen KI, Kim H-J, Shiu C, & Bryan AE (2017). Chronic health conditions and key health indicators among lesbian, gay, and bisexual older US adults, 2013–2014. American Journal of Public Health, 107(8), 1332–1338. doi:10.2105/AJPH.2017.303922 [PubMed: 28700299]

Fredriksen-Goldsen KI, Simoni JM, Kim H-J, Lehavot K, Walters KL, Yang J, … Muraco A (2014). The health equity promotion model: Reconceptualization of lesbian, gay, bisexual, and transgender (LGBT) health disparities. American Journal of Orthopsychiatry, 84(6), 653–663. doi:10.1037/ort0000030 [PubMed: 25545433]

Gates GJ (2013). LGBT Adult Immigrants in the United States. Los Angeles, CA: The Williams Institute Retrieved from https://williamsinstitute.law.ucla.edu/wp-content/uploads/LGBTImmigrants-Gates-Mar-2013.pdf

Gubernskaya Z, Bean FD, & Van Hook J (2013). (Un)healthy immigrant citizens: Naturalization and activity limitations in older age. Journal of Health and Social Behavior, 54(4), 427–443. [PubMed: 24311754]

Hamilton TG (2015). The healthy immigrant (migrant) effect: In search of a better native-born comparison group. Social Science Research, 54, 353–365. doi:10.1016/j.ssresearch.2015.08.008 [PubMed: 26463553]

Hatzenbuehler ML, Prins SJ, Flake M, Philbin M, Frazer MS, Hagen D, & Hirsch J (2017). Immigration policies and mental health morbidity among Latinos: A state-level analysis. Social Science & Medicine, 174, 169–178. doi:10.1016/j.socscimed.2016.11.040 [PubMed: 28043019]

Howe C (2007). Sexual borderlands: Lesbian and gay migration, human rights, and the metropolitan community church. Sexuality Research & Social Policy, 4(2), 88–106. doi:10.1525/srsp.2007.4.2.88

Jargowsky P (2009). Immigrants and neighbourhoods of concentrated poverty: Assimilation or stagnation? Journal of Ethnic and Migration Studies, 7, 1129–1151. doi: 10.1080/13691830903006150

Jamal A, Homa DM, O'Connor E, Babb SD, Caraballo RS, Singh T, … King BA (2015). Current cigarette smoking among adults—United States, 2005–2014. Morbidity and Mortality Weekly Report, 64(44), 1233–1240. doi:10.15585/mmwr.mm6444a2 [PubMed: 26562061]

Kim HJ, Jen S, & Fredriksen-Goldsen KI (2017). Race/ethnicity and health-related quality of life among LGBT older adults. The Gerontologist, 57(suppl 1), S30–S39. doi:10.1093/geront/gnw172 [PubMed: 28087793]

Leclere FB, Jensen L, & Biddlecom AE (1994). Health care utilization, family context, and adaptation among immigrants to the United States. Journal of Health and Social Behavior, 35(4), 370–384. doi:10.2307/2137215 [PubMed: 7844331]

Lee S, O'Neill AH, Ihara ES, & Chae DH (2013). Change in self-reported health status among immigrants in the United States: Associations with measures of acculturation. PLoS One, 8(10), e76494. doi:10.1371/journal.pone.0076494 [PubMed: 24098515]

Lee S, & Valliant R (2009). Estimation for volunteer panel web surveys using propensity score adjustment and calibration adjustment. Sociological Methods & Research, 37, 319–343.

Lewinsohn PM, Seeley JR, Roberts RE, & Allen NB (1997). Center for Epidemiologic Studies Depression Scale (CES-D) as a screening instrument for depression among community-residing older adults. Psychology and Aging, 12(2), 277–287. [PubMed: 9189988]

Mayer KH, Bradford JB, Makadon HJ, Stall R, Goldhammer H, & Landers S (2008). Sexual and gender minority health: What we know and what needs to be done. American Journal of Public Health, 98(6), 989–995. doi: 10.2105/AJPH.2007.127811 [PubMed: 18445789]

Morey BN (2018). Mechanisms by which anti-immigrant stigma exacerbates racial/ethnic health disparities. American Journal of Public Health, 108(4), 460–463. doi:10.2105/ajph.2017.304266 [PubMed: 29470116]

National Center for Health Statistics. (2017). Survey Description, National Health Interview Survey, 2016. Retrieved from Hyattsville, Maryland: ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHIS/2016/srvydesc.pdf

Pereira KM, Crosnoe R, Fortuny K, Pedroza JM, Ulvestad K, Weiland C, … Chaudry A (2012). Barriers to immigrants' access to health and human services programs. Retrieved from Washington, DC: https://aspe.hhs.gov/system/files/pdf/76471/rb.pdf

Population Reference Bureau. (2013). Elderly immigrants in the United States. Retrieved from Washington, DC: https://www.prb.org/us-elderly-immigrants/

Rhodes SD, Mann L, Simán FM, Song E, Alonzo J, Downs M, … Hall MA (2015). The impact of local immigration enforcement policies on the health of immigrant Hispanics/Latinos in the United States. American Journal of Public Health, 105(2), 329–337. doi:10.2105/ajph.2014.302218 [PubMed: 25521886]

Shiu C, Kim H-J, & Fredriksen-Goldsen K (2017). Health care engagement among LGBT older adults: The role of depression diagnosis and symptomatology. The Gerontologist, 57(suppl 1), S105–S114. doi:10.1093/geront/gnw186 [PubMed: 28087800]

Singh GK, Siahpush M, Liu L, & Allender M (2018). Racial/ethnic, nativity, and sociodemographic disparities in maternal hypertension in the United States, 2014–2015. International Journal of Hypertension, 2018, Article ID 7897189. doi:10.1155/2018/7897189

Sokan AE, & Davis T (2016). Immigrant LGBT elders In Harley DA & Teaster PB (Eds.), Handbook of LGBT elders: An interdisciplinary approach to principles, practices, and policies (pp. 261–284). New York, NY: Springer International Publishing.

Turra CM, & Elo IT (2008). The impact of salmon bias on the Hispanic mortality advantage: New evidence from social security data. Population Research and Policy Review, 27(5), 515–530. doi: 10.1007/s11113-008-9087-4 [PubMed: 19122882]

United Nations. (2017). International migration report 2017. Retrieved from New York, NY: http://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2017.pdf

Üstün TB, Kostanjsek N, Chatterji S, & Rehm J (2010). Measuring health and disability: Manual for WHO disability assessment schedule WHODAS 2.0. Geneva, Switzerland: World Health Organization.

Wakabayashi C (2010). Effects of immigration and age on health of older people in the United States. Journal of Applied Gerontology, 29(6), 697–719. doi:10.1177/0733464809353602

Westmarland L (2001). Gender and policing. London, UK: Willan.

Table 1.

Sociodemographic Characteristics Among U.S.-Born and Foreign-Born LGBT Adults Aged 50 Years or Older in the United States, 2014.

Characteristic	U.S.-born (*n* = 2,267) % [95% CI]	Foreign-born (*n* = 174) % (95% CI)	*p*
Gender			.13
Woman	44.4 [41.1, 47.8]	32.2 [22.0, 44.4]	
Man	50.0 [46.6, 53.3]	57.3 [44.6, 69.1]	
Other	5.6 [4.0, 7.8]	10.5 [4.2, 23.9]	
Age (M; range: 50–98), years	61.5 [61.0, 62.0]	60.1 [58.4, 61.8]	.11
Age 50–64	29.72 [27.07, 32.50]	31.22 [21.29, 43.25]	.79
Age 65 and older	70.28 [67.50, 72.93]	68.78 [56.75, 78.71]	
Sexual orientation			.51
Lesbian or gay	72.2 [68.7, 75.3]	72.3 [59.1, 82.5]	
Bisexual	17.3 [14.7, 20.4]	16.0 [8.7, 27.5]	
Heterosexual	2.3 [1.3, 3.8]	0.30 [0.0, 1.2]	
Other	8.3 [6.4, 10.6]	11.4 [4.8, 24.5]	
Gender identity			.73
Transgender	16.98 [14.31, 20.04]	15.06 [7.55, 27.79]	
Cisgender	83.02 [79.96, 85.69]	84.94 [72.21, 92.45]	
Race or ethnicity			<.001
Hispanic	6.3 [4.8, 8.3]	53.8 [41.5, 65.6]	
Non-Hispanic White	80.3 [77.3, 82.9]	34.8 [24.6, 46.6]	
Non-Hispanic Black	9.4 [7.5, 11.7]	5.2 [1.4, 17.5]	
Other	4.0 [2.8, 5.7]	6.2 [3.4, 11.1]	
Income			<.01
At or below 200% FPL	34.9 [31.7, 38.2]	56.0 [43.1, 67.4]	
Education			<.001
High school graduate or less	24.1 [20.9, 27.6]	46.3 [33.8, 59.3]	
College graduate or less	38.3 [35.2, 41.6]	31.5 [22.0, 42.7]	
Graduate or professional degree	37.6 [34.5, 40.8]	22.3 [15.2, 31.5]	

Note. CI = confidence interval; FPL = federal poverty line; M=mean.

Table 2.

Health Indicators Among U.S.-Born and Foreign-Born LGBT Older Adults in the United States, 2014.

	U.S.-born (*n* = 2,267) % or Mean [95% CI]	Foreign-born (*n* = 174) % or Mean [95% CI]	*p*[a] Unadjusted	*p*[a] Adjusted[b]
Health-care access				
Structural-level barriers				
No LGBT friendly healthcare (M)	1.39 [1.34, 1.45]	1.69 [1.40, 1.98]	<.05	.24
Care needed was not available in area (M)	1.27 [1.22, 1.32]	1.58 [1.31, 1.85]	<.05	<.05
Did not have transportation (M)	1.20 [1.16, 1.25]	1.60 [1.33, 1.88]	<.01	<.05
Felt unfair treatment by doctor (M)	1.44 [1.39, 1.49]	1.65 [1.45, 1.86]	<.05	<.05
Individual-level barriers				
Health literacy	3.1 1 [3.07, 3.15]	2.94 [2.72, 3.16]	.14	.19
Could not afford medical care (M)	1.31 [1.26, 1.35]	1.53 [1.31, 1.75]	<.05	.05
Put off doctor even though sick (M)	1.49 [1.45, 1.54]	1.64 [1.41, 1.88]	.23	.20
No trust in doctors (M)	1.47 [1.42, 1.52]	1.89 [1.63, 2.16]	<.01	<.01
Health behaviors				
Annual health checkup	83.02 [80.25, 85.47]	88.58 [79.89, 93.81]	.19	.82
Flu shot	66.27 [62.87, 69.51]	69.89 [56.40, 80.64]	.59	.39
Physical activities	78.98 [76.09, 81.60]	80.99 [69.66, 88.77]	.70	.97
Smoking	13.25 [10.95, 15.95]	19.50 [1 1.39, 31.35]	.18	.25
Excessive drinking	21.21 [18.44,24.27]	20.97 [12.57, 32.87]	.97	.97
Malnutrition (M)	1.53 [1.48, 1.58]	1.86 [1.60, 2.13]	<.05	.26
Health outcomes				
Poor general health	25.65 [22.74, 28.79]	29.22 [18.77, 42.46]	.56	.81
Depressive symptomatology (M)	8.07 [7.60, 8.54]	10.41 [8.43, 12.38]	<.05	.22
HIV/AIDS	16.94 [14.48, 19.71]	34.63 [23.37, 47.93]	<.001	.69
Cognitive difficulties (M)	17.83 [16.50, 19.17]	26.53 [20.62, 32.44]	<.01	.1 1
Physical difficulties (M)	0.80 [0.74, 0.86]	0.89 [0.69, 1.09]	.41	.89
Disability	53.06 [49.67, 56.41]	53.82 [41.33, 65.85]	.91	.65

Note. CI=confidence interval; LGBT=lesbian, gay, bisexual, and transgender.

[a] *p* value is for the difference between foreign-born and U.S.-born.

[b] Adjusted for gender, age, sexual orientation, race/ethnicity, income, and education.

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